

WHAT IS CLAIMED IS:

1. A method of encoding video data comprising:
 - dividing each frame of a video signal into a plurality of macroblocks;
 - assigning, for each frame, one or more of the plurality of macroblocks to be Intra refreshed to a first slice group;
 - assigning, for each frame, a remainder of the plurality of macroblocks to one or more other slice groups;
 - generating a map indicating what macroblocks were assigned to the first slice group;
 - and
 - indexing the map for each subsequent frame to correspond to the macroblocks to be Intra refreshed in the subsequent frame.
2. The method of claim 1 further comprising the step of transmitting video data comprising the plurality of macroblocks and the map to another device.
3. A method of decoding a video signal comprising:
 - receiving a signal comprising a plurality of macroblocks, wherein one or more of the macroblocks is assigned to a first slice group and the remaining macroblocks are assigned to one or more other slice groups, and a map indicating what macroblocks were assigned to the first slice group;
 - decoding the one or more macroblocks assigned to the first slice group as Intra encoded without referring to macroblocks not assigned to the first slice group;
 - decoding the remaining macroblocks assigned to one or more other slice groups; and
 - generating a frame of video from the decoded macroblocks.

4. The method of claim 3 further comprising:
 - indexing the map for a subsequent frame;
 - decoding one or more macroblocks corresponding to the subsequent frame and assigned to a first slice group of the subsequent frame without referring to macroblocks not assigned to the first slice group in the subsequent frame;
 - decoding the remaining macroblocks corresponding to the subsequent frame; and
 - regenerating the subsequent frame of video from the decoded macroblocks.
5. The method of claim 3 further comprising the step of displaying the generated frame.
6. A memory storage medium having stored thereupon video data, wherein the video data is divided into a sequence of frames, each frame being subdivided into a plurality of macroblocks, wherein one or more of the macroblocks are assigned to a first slice group and the remainder of the plurality of macroblocks are assigned to one or more other slice groups, the video data further comprising a map indicating what macroblocks were assigned to the first slice group, wherein the macroblocks assigned to the first slice group are encoded as Intra blocks, and wherein the remaining macroblocks are coded as Intra or Inter coded blocks.
7. An apparatus for encoding a video signal, the apparatus comprising a CPU and an image processing engine, wherein the apparatus is programmed to:
 - divide each frame of a video signal into a plurality of macroblocks;
 - assign one or more of the plurality of macroblocks for each frame to be Intra refreshed to a first slice group;
 - assign a remainder of the plurality of macroblocks for each frame to one or more other slice groups;
 - generate a map indicating what macroblocks were assigned to the first slice group;
 - and
 - index the map for each subsequent frame to correspond to the macroblocks to be Intra refreshed in the subsequent frame.
8. The apparatus of claim 7 further comprising a video capture device.

9. An apparatus for decoding video data, the apparatus comprising a CPU programmed to:
 - receive a signal comprising a plurality of macroblocks, wherein one or more of the macroblocks is assigned to a first slice group and the remaining macroblocks are assigned to one or more other slice groups, and a map indicating what macroblocks were assigned to the first slice group;
 - decode the one or more macroblocks assigned to the first slice group as Intra encoded macroblocks without reference to macroblocks outside the first slice group;
 - decode the remaining macroblocks assigned to one or more other slice groups as Intra or Inter coded macroblocks; and
 - generate a frame of video from the decoded macroblocks.
10. The apparatus of claim 9 further comprising a display device, wherein the CPU is programmed to effect display of the generated frame of video on the display device.